Firefox C++ Development Intern

Mozilla is hiring C++ Software Engineering Interns onto our technical teams throughout the world. Our headquarters are based in the Bay Area, but we also have opportunities at our offices in Berlin and Toronto!

We are engineers, designers, makers, and problem solvers. We work in the fishbowl known as the open source community, with a clear focus on making the Web better. Working with us, you'll help build interesting new features, improve Mozilla products, and explore new product directions. To be part of the team, we ask that you be user centered, technically-curious, and excited to be moving the Mozilla mission forward.

As a part of our Mozilla Internship Program, you will:

- Impact challenging projects influenced by our family of Mozilla products in and outside of the Firefox web browser (accessibility, voice design, developer tools, mobile, and mixed reality), Rust, Pocket, and more
- Be mentored by a fellow teammate and someone who shares the same values
- Do real work on real projects and make contributions that will impact hundreds of millions of users
- Participate in social events with your fellow interns (amusement parks, ice cream and boba socials, board game nights, escape rooms, and painting parties)
- Meet with Mozilla leaders including our CEO, Executive Chairwoman, CPO, Chief R&D Officer, CMO, and Executive Foundation Director
- Present your work to Mozilla leaders and fellow team members

Perks include:

- Market competitive pay
- Catered lunches, snacks, and drinks
- Housing service or housing stipend provided
- Flights and ground transportation to and from internship
- Work visas sponsored
- Attendance at our bi-annual All Hands Meeting

Application and Interview Process

- Recruiting begins in September, and we hire on a rolling basis through March. While there is no set application deadline, we do have a limited number of positions open each year, so please apply early!
- Locations include Mountain View, San Francisco, Toronto, Berlin, and Paris.

Please refer to our internship listings for specific locations offered by position.
- Process starts with a resume review followed by a HackerRank challenge (technical) or document submission (non-technical).
- Upon passing, you will partake in two technical and behavioral interviews with team members (coding and situational questions are fair game) followed by a hiring manager interview and ultimately, an offer decision.

We have 8 positions open for the following roles:

Firefox Android Platform Engineering Intern (Mountain View, CA)
The GeckoView team is working on bringing our powerful quantum engine to Android to enable both internal and external teams to build modern robust browsers and web applications. We design and implement Android APIs to allow front-end teams to use the quantum browser engine. You will have the opportunity to use your Java, Kotlin, JavaScript, and/or C++ skills to help us build differentiating capability into our new mobile products. We care a lot about the Mozilla mission and you can expect engineering projects related to user empowerment, privacy, security, and inclusion.

DOM - Document Object Model Intern (Berlin, Germany)
The DOM team works on Mozilla's implementation of the Document Object Model spec, Firefox's event infrastructure, Web Workers, IndexedDB, and many other parts of Firefox. Web developers whose work is rendered by Gecko rely on these implementations for building modern Web experiences. We're looking for interns to help us advance the features, such as Service Workers, Web Components or Firefox's event infrastructure. You'll be responsible for solving problems, writing code and tests, and working collaboratively with a worldwide community to get feedback from real users.

Software Engineering Intern, Graphics (Toronto, Canada and Berlin, Germany)
The Graphics team is responsible for rendering the content and UI of the browser, decoding images, canvas and WebGL, painting and compositing everything you see on the screen. We are also the team responsible for WebRender. Our focus is writing fast, lightweight, and maintainable code to make Firefox great for users. We are looking for C++ or Rust interns who can also look at a disassembly and reason about its performance. The right person will take initiative to solve problems and will help us find ways to make web browsers fast using GPUs.

Firefox Performance Intern (Toronto, Canada)
The Firefox Performance team at Mozilla works to improve the speed of Firefox. We're

looking for an intern to improve our browser performance (GeckoView). You will analyze profiles to identify slow areas of the browser, write tests and tools to measure browser performance, and contribute to making Firefox faster on mobile devices.

Software Engineering Intern, Layout (San Francisco, CA)

The Firefox Platform Rendering team is a global community of engineers who care deeply about how the Web looks and renders. We are the team responsible for HTML layout, CSS, images, text, and animations in Gecko, the engine behind Firefox. Are you a hardworking C++ programmer who loves collaborating with other driven, committed team members to help bring the Open Web to millions of people? If so, we'd love to hear from you! On our team, you will be able to design and develop standards-compliant CSS and page layout features that all of our users see, making the Web Platform more beautiful, accessible and usable over time.

SpiderMonkey Parser Intern (Toronto, Canada)

The JavaScript team, also known as the SpiderMonkey team, is responsible for the JavaScript implementation in Firefox, with a focus on improving web compatibility, performance, security and maintainability. Our implementation is written in C++ today, but we are considering rust for some newer projects where it makes sense. We're looking for an intern to help us improve the SpiderMonkey front-end, which includes refactoring the parser and other front-end components.

Basic Qualifications:
- Must be currently enrolled in a Bachelor's or Master's degree program in Computer Science, Computer Engineering, or a related technical discipline
- Must be graduating in December 2020 and onward
- Or a recent graduate from a Coding Academy (within the last year)
- C / C++

Preferred Qualifications:
- Understanding of Web Technologies - Javascript, HTML, and CSS
- Android Applications in Kotlin or Java
- UX Design
- Graphic Design
- Web design tools and languages
- Reasonable fluency in and passion for technology
- Strong communication and social skills
- Strong analytical and critical thinking skills

- Empathy for users, passion for using data to make product decisions, experience with user research techniques
- Excellent organization, time management, and interpersonal skills
- Ability to effectively articulate technical challenges, propose solutions, and incorporate feedback
- Passion for working in the open and engaging with Mozilla's global community
- Ability to work independently or as part of a larger group

About Mozilla

Mozilla exists to build the Internet as a public resource accessible to all because we believe that open and free is better than closed and controlled. Join us and become part of our mission to promote openness, innovation and opportunity online.

Mozilla is committed to Equal Employment Opportunity throughout our recruiting and hiring process and is dedicated to increasing diversity in our workplace.